

§ 431.87

10 CFR Ch. II (1–13 Edition)

(ii) *Thermal Efficiency.* Use the calculation procedure for the thermal efficiency test specified in Section 11.1 of the HI BTS–2000, Rev 06.07 (incorporated by reference, *see* § 431.85).

[74 FR 36354, July 22, 2009]

ENERGY EFFICIENCY STANDARDS

§ 431.87 Energy conservation standards and their effective dates.

(a) Each commercial packaged boiler manufactured on or after January 1, 1994, and before March 2, 2012, must meet the following energy efficiency standard levels:

(1) For a gas-fired packaged boiler with a capacity (rated maximum input)

of 300,000 Btu/h or more, the combustion efficiency at the maximum rated capacity must be not less than 80 percent.

(2) For an oil-fired packaged boiler with a capacity (rated maximum input) of 300,000 Btu/h or more, the combustion efficiency at the maximum rated capacity must be not less than 83 percent.

(b) Each commercial packaged boiler listed in Table 1 to § 431.87 and manufactured on or after the effective date listed in Table 1 of this section, must meet the applicable energy conservation standard in Table 1.

TABLE 1 TO § 431.87—COMMERCIAL PACKAGED BOILER ENERGY CONSERVATION STANDARDS

Equipment type	Subcategory	Size category (input)	Efficiency level—Effective date: March 2, 2012 *
Hot Water Commercial Packaged Boilers ...	Gas-fired	≥300,000 Btu/h and ≤2,500,000 Btu/h.	80.0% E _T
Hot Water Commercial Packaged Boilers ...	Gas-fired	>2,500,000 Btu/h	82.0% E _C
Hot Water Commercial Packaged Boilers ...	Oil-fired	≥300,000 Btu/h and ≤2,500,000 Btu/h.	82.0% E _T
Hot Water Commercial Packaged Boilers ...	Oil-fired	>2,500,000 Btu/h	84.0% E _C
Steam Commercial Packaged Boilers	Gas-fired—all, except natural draft	≥300,000 Btu/h and ≤2,500,000 Btu/h.	79.0% E _T
Steam Commercial Packaged Boilers	Gas-fired—all, except natural draft	>2,500,000 Btu/h	79.0% E _T
Steam Commercial Packaged Boilers	Gas-fired—natural draft	≥300,000 Btu/h and ≤2,500,000 Btu/h.	77.0% E _T
Steam Commercial Packaged Boilers	Gas-fired—natural draft	>2,500,000 Btu/h	77.0% E _T
Steam Commercial Packaged Boilers	Oil-fired	≥300,000 Btu/h and ≤2,500,000 Btu/h.	81.0% E _T
Steam Commercial Packaged Boilers	Oil-fired	>2,500,000 Btu/h	81.0% E _T

*Where E_C is combustion efficiency and E_T is thermal efficiency as defined in § 431.82.

(c) Each commercial packaged boiler listed in Table 2 to § 431.87 and manufactured on or after the effective date

listed in Table 2 of this section, must meet the applicable energy conservation standard in Table 2.

TABLE 2 TO § 431.87—COMMERCIAL PACKAGED BOILER ENERGY CONSERVATION STANDARDS

Equipment type	Subcategory	Size category (input)	Efficiency level—Effective date: March 2, 2022 *
Steam Commercial Packaged Boilers ...	Gas-fired—natural draft	≥300,000 Btu/h and ≤2,500,000 Btu/h	79.0% E _T
Steam Commercial Packaged Boilers ...	Gas-fired—natural draft	>2,500,000 Btu/h	79.0% E _T

*Where E_C is combustion efficiency and E_T is thermal efficiency as defined in § 431.82.

[74 FR 36355, July 22, 2009]

Subpart F—Commercial Air Conditioners and Heat Pumps

SOURCE: 69 FR 61969, Oct. 21, 2004, unless otherwise noted.

§ 431.91 Purpose and scope.

This subpart specifies test procedures and energy conservation standards for certain commercial air conditioners and heat pumps, pursuant to Part C of